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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,720	01/10/2007	Patrick Moireau	294251US0PCT	1968

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

GRAY, JILL M

ART UNIT	PAPER NUMBER
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1798

NOTIFICATION DATE	DELIVERY MODE
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09/19/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/588,720	Applicant(s) MOIREAU ET AL.	
	Examiner JILL GRAY	Art Unit 1798	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1,2,4-7 and 10-20 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1,2,4-7 and 10-20 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Pursuant to the entry of the amendment of June 22, 2011, the status of the claims is as follows: Claims 1-2, 4-7, and 9-20 are pending. Claims 3 and 8 are cancelled. Claims 1 and 9 are amended.
2. The rejection of claims 1-7 and 9-20 under 35 U.S.C. 103(a) as being unpatentable over Lin et al., 4,090,984 in view of Miller 6,086,791 and Litant 3,406,126 is moot in view of applicants' amendment.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-7 and 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Novich et al., 6,419,981 B1 (Novich) in view of Miller 6,086,791.

Regarding Independent claims 1 and 9

Novich discloses a glass strand or glass strand structure coating with a coating composition that can contain electrically conducting particles. See entire document. In addition, Novich discloses that the coating composition comprises a film forming agent in an amount generally ranging from 1 to 99 wt% and preferably from 1 to 50 wt%. See column 23, lines 24-31. The film forming agents can be polyvinylpyrrolidone or polyvinyl alcohol or polyurethane. See column 24, lines 1-35. The composition also can contain plasticizers in an amount of from 1 to 5 wt% (column 29, lines 26-30) or surfactants or emulsifying agent such as polyalkoxylated compounds in an amount of 1 to 15 wt%. See column 29, lines 2-25. In addition, Novich discloses that his composition contains

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electrically conductive particles such as graphite or boron nitride wherein said particles can be lamellar in structure, (note column 11, lines 7-35). Note also column 9, lines 44-51, wherein Novich that his particles can have any shape or configuration desired. Novich discloses that his particles preferably comprise 50 to 60 wt% of inorganic particles. See column 22, lines 52-64.

Novich does not specifically teach that his composition contains 44 to 75% of electrically conducting particles wherein at least 15% of the particles have a flake or needle shape.

Novich teaches that particles mixtures can be used, further teaching that the particles can have any shape or configuration.

Miller teaches electrically conductive coatings comprising carbon or graphite flakes having a particle size of about 5 μ to about 500 μ . See entire document, and for example, abstract. Moreover, Miller teaches that flake-like carbons are highly conductive.

It would have been obvious to one having ordinary skill in the art to modify the composition of Miller by including at least 15% by weight of electrically conducting particles such as carbon having a flake-like shape with the reasonable expectation of success of enhancing the conductivity.

Regarding dependent claims 2, 4-7, and 10-20

As to claim 2, Novich discloses polymers as his film forming agent. See above.

As to claim 4, Novich discloses surfactants such as ethoxylated compounds. See column 29, lines 2-25.

As to claims 5-7 and 11, Miller teaches particles having a particle size that does not exceed 250 μ m can be used. Since Miller teaches the usage of particles within the present claimed particle size, the examiner has reason to believe that properties such as the aspect ratio are within the claimed range as well. Furthermore, it is the examiner's position that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimension, would not perform differently than the prior art device, the claimed device was not patentable distinct from the prior art device. See MPEP 2144.04. Accordingly, the requirements of present claims 7 and 11 are not construed to be a matter of invention in the absence of factual evidence to the contrary.

As to claims 10 and 16, As to claims 10 and 16, the prior art composition is the same as or substantially similar to the composition of the present claims. Products of the same composition cannot have mutually exclusive properties. A chemical composition and its properties are inseparable. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562, F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicants has the burden of showing that they are not. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Accordingly, the examiner has reason to believe that the

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composition of the prior art exhibits a viscosity that is essentially as claimed by applicants in the absence of factual evidence to the contrary.

As to claims 12-14, claim 12 is dependent upon product claim 1. Hence, claims 12-14 are product-by-process claims, wherein patentability is based upon the product itself and not the process of making said product. [E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 21136. Nonetheless, Novich discloses a process for preparing the glass strand or structure that comprises coating a glass strand or structure with said composition and heating at a temperature sufficient to remove the water. See column 60. The dried coating is inherently strengthened. As to claim 13, Novich discloses that the glass strand can be coated by impregnation. As to claim 14, Novich discloses a temperature of 190oF (87.7oC) and that Miller teaches that his coating can be air dried or heated to a temperature of 200°F (93.3°C). These teachings suggest that the determination of optimum temperature for removing the solvent can be determined during routine experimentation commensurate. Accordingly, the examiner's position remains that normally a change in temperature would be an unpatentable modification, unless these changes impart patentability to a process if the particular ranges claimed produce a new and unexpected result which is different from the prior

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art. It is not evident on this record that the present claimed temperature range is critical. Moreover, Novich discloses the general conditions of the process of 12. Hence, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233 (CCPA 1955).

As to claim 15, Novich discloses that the glass strand can be twisted. See Example 1.

As to claims 17-18, Novich discloses the formation of prepregs with matrix materials of the type contemplated by applicants. Note column 52, lines 43-45 wherein Novich discloses epoxy resin matrix.

As to claims 19 and 20, Novich discloses that his particles preferably comprise 50 to 60 wt% of inorganic particles. See column 22, lines 52-64.

Therefore, the combined teachings of Novich and Miller render obvious the invention as claimed in present claims 12, 4-7 and 10-20.

Response to Arguments

5. Applicant's arguments with respect to claims 1-2, 4-7, and 10-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JILL GRAY whose telephone number is (571)272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on 571-272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jill Gray/
Primary Examiner
Art Unit 1798

jmg